

APPENDIX C

PAINT AND CLEANING SOLVENTS

Relative Evaporation Time--The relative time required for the solvent to completely evaporate, based on an arbitrary value of 1.0 for ethyl ether. The higher the number the longer the time required for evaporation.

Flash Point--The temperature of the solvent in degrees Fahrenheit at which it releases sufficient vapor to ignite in the presence of a flame. The higher the value, the safer the solvent with respect to flash point.

Explosive Limits--There is a minimum concentration of solvent vapor in air below which it will not ignite or explode; likewise a maximum concentration above which it also will not ignite. These values are expressed as the percentage of the solvent vapor in the total volume of vapor plus air. They are also called Flammable Limits.

Threshold Limit Value (TLV)--This is a measure of the concentration of a solvent vapor in the air which can be tolerated during an 8-hour working day. Since these concentrations are very low, they are expressed as parts per million (ppm) of vapor per volume of air. The higher the value, the safer the solvent.

PAINT AND CLEANING SOLVENTS

	Relative evaporation time	Flash point (°F)	Explosive limits (% by volume) (min.) (max.)		Threshold limit values* (ppm)
Acetone	4	10	2.6	12.8	(1000) 750
Amyl Acetate	50	100	1.1	7.5	100
Amyl Alcohol	100	115	1.2	10.0	100
Benzene (Benzol)	8	10	1.4	7.1	10**
Butyl Acetate	30	90	1.7	7.6	150
Butyl Alcohol (Butanol)	70	105	1.4	11.2	50
Carbon Tetrachloride**	8	-Not flammable-			(10)5
Diacetone Alcohol	200	145	1.8	6.9	30
Di-isobutyl Ketone (DIBK)	150	140	0.8	6.2	25
Ethyl Acetate	8	40	2.5	9.0	400
Ethyl (Grain) Alcohol (Ethanol)	20	60	4.3	19.0	1000
Ethylene Glycol Monoethyl Ether (Cellosolve)	100	110	2.6	15.7	200
Ethylene Glycol Monoethyl Ether Acetate (Cellosolve Acetate)	32	130	1.7	No data	25
Hi-Flash Naphtha (Aromatic)	105	105	1.0	7.0	500
Isopropyl Acetate	10	50	1.8	7.8	250
Isopropyl Alcohol (Isopropanol)	25	65	2.5	12.0	400
Methyl (Wood) Alcohol (Methanol)***	10	55	5.5	36.5	200***
Methylene Chloride	4	-Not flammable-			(200)100
Methyl Ethyl Ketone (MEK)	8	30	1.8	10.0	200
Methyl Isobutyl Ketone (MIBK)	20	65	1.4	7.5	100
Mineral Spirits (Petroleum Thinner)	150	105	0.8	7.0	--
Refined Kerosene	800	150	0.7	5.0	--
Toluene (Toluol)	15	45	1.3	7.0	100
Turpentine	100	105	0.8	No data	100
VM & P Naphtha (Benzine)	20	50	1.1	5.9	300
Water	100	-Not flammable-			--
Xylene (Xylol)	35	85	1.0	6.0	100

**TLVs Threshold Limit Values for Chemical Substances and Physical Agents in the Workroom Environment with intended Changes for 1979,"American Conference of Governmental Industrial Hygienists, P.O. Box 1937, Cincinnati, Ohio 45201. Figures in parentheses are in for intended change to the adjacent figures. The values for amyl alcohol, cellosolve, 4-flash Naphtha, Mineral Spirits (Local irritant only), Kerosene (local irritant only) were from Occupational Diseases, DHEW, NIOSH, PUB-77-181, June 1977.

**Not approved

***Deadly poison